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APPLICATION NO.		FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO	
10/079,137		02/20/2002	Tony N. Frudakis	210121.419C13	7756	
500	7590	06/18/2004		EXAM	EXAMINER	
DDD25		TUAL PROPERTY	ZEMAN, I	ZEMAN, MARY K		
	701 FIFTH AVE SUITE 6300 SEATTLE, WA 98104-7092			ART UNIT	PAPER NUMBER	
SEATTLE,				1631		
				DATE MAILED: 06/18/2004	4	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
	10/079,137	FRUDAKIS ET AL.	
Office Action Summary	Examiner	Art Unit	
	Mary K Zeman	1631	
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address	
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	16(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).	
Status			
1) Responsive to communication(s) filed on 15 Ap	<u>oril 2004</u> .		
2a) ☐ This action is <b>FINAL</b> . 2b) ☒ This	action is non-final.		
3) Since this application is in condition for allowan	ce except for formal matters, pro	secution as to the merits is	
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	3 O.G. 213.	
Disposition of Claims		•	
4) Claim(s) <u>1,3,4,8,11 and 15</u> is/are pending in the	e application.		
4a) Of the above claim(s) is/are withdraw	vn from consideration.		
5) Claim(s) is/are allowed.			
6) Claim(s) <u>1,3,4,8,11 and 15</u> is/are rejected.			
7) Claim(s) is/are objected to.			
8) Claim(s) are subject to restriction and/or	election requirement.		
Application Papers			
9) The specification is objected to by the Examiner			
10)⊠ The drawing(s) filed on 20 February 2002 is/are	: a)⊠ accepted or b)□ objected	d to by the Examiner.	
Applicant may not request that any objection to the o	Irawing(s) be held in abeyance. See	37 CFR 1.85(a).	
Replacement drawing sheet(s) including the correcti		• •	
11) The oath or declaration is objected to by the Ex	aminer. Note the attached Office	Action or form PTO-152.	
Priority under 35 U.S.C. § 119			
12) ☐ Acknowledgment is made of a claim for foreign a) ☐ All b) ☐ Some * c) ☐ None of:	priority under 35 U.S.C. § 119(a)	-(d) or (f).	
1. Certified copies of the priority documents			
2. Certified copies of the priority documents			
3. Copies of the certified copies of the priori		d in this National Stage	
application from the International Bureau  * See the attached detailed Office action for a list of		4	
oce the attached detailed Office action for a list t	of the certified copies not received	u.	
Attachment(s)			
) Notice of References Cited (PTO-892)	4) Interview Summary (	PTO-413)	
2) D Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Dai	e	
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date	5)	atent Application (PTO-152)	

Art Unit: 1631

#### DETAILED ACTION

Applicant's election of Group I, claims 1, 3, 4, 8, 11 and 15 and SEQ ID NO: 343 in the reply filed on 4/15/04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1, 3, 4, 8, 11 and 15 are pending in this application.

#### **Priority**

The supplemental Application Data Sheet filed 4/15/04 has been entered. The first full disclosure of the elected sequence, SEQ ID NO: 343 is in the instant application, therefore all claims are afforded the filing date of 2/20/2002.

### Information Disclosure Statement

The IDS papers filed 4/25/02 and 3/26/03 have been entered and considered. Initialed copies of the PTO-1449 forms are enclosed with this action.

### Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3, 4, 8, 11 and 15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a written description rejection.

The specification discloses SEQ ID NO: 343 which corresponds to the splice variants of the gene coding for the Breast Cancer specific antigen B305D also referred to in the specification as D305D. Claims limited to the *particular disclosed sequences* related to this antigen, including SEQ ID NO: 343 would meet the written description provisions of 35 USC 112, first paragraph.

Art Unit: 1631

However, claims 1 and 8 (and dependent claims thereon) are specifically directed to encompass sequences that hybridize to SEQ ID NO: 343, corresponding sequences from other species, mutated sequences, allelic variants, splice variants, sequences that have a recited degree of identity (similarity, homology), sequences "that hybridize" and so forth. None of these sequences meet the written description provision of 35 USC 112, first paragraph. The specification provides insufficient written description to support the genus encompassed by the claim.

<u>Vas-Cath Inc. v. Mahurkar</u>, 19 USPQ2d 1111, makes clear that "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the 'written description' inquiry, whatever is now claimed." (See page 1117.) The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (See <u>Vas-Cath</u> at page 1116.)

With the exception of SEQ ID NO: 302 and 303, the skilled artisan cannot envision the detailed chemical structure of the encompassed polynucleotides and/or proteins, regardless of the complexity or simplicity of the method of isolation. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it. The nucleic acid itself is required. See <u>Fiers v. Revel</u>, 25 USPQ2d 1601, 1606 (CAFC 1993) and <u>Amgen Inc. V. Chugai Pharmaceutical Co. Ltd.</u>, 18 USPQ2d 1016. In <u>Fiddes v. Baird</u>, 30 USPQ2d 1481, 1483, claims directed to mammalian FGF's were found unpatentable due to lack of written description for the broad class. The specification provided only the bovine sequence.

Finally, <u>University of California v. Eli Lilly and Co.</u>, 43 USPQ2d 1398, 1404, 1405 held that:

...To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that "the inventor invented the claimed invention." *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (1997); *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) (" [T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed."). Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." *Lockwood*, 107 F.3d at 1572, 41 USPQ2d at 1966.

Art Unit: 1631

An adequate written description of a DNA, such as the cDNA of the recombinant plasmids and microorganisms of the '525 patent, "requires a precise definition, such as by structure, formula, chemical name, or physical properties," not a mere wish or plan for obtaining the claimed chemical invention. *Fiers v. Revel*, 984 F.2d 1164, 1171, 25 USPQ2d 1601, 1606 (Fed. Cir. 1993). Accordingly, "an adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself." Id. at 1170, 25 USPQ2d at 1606.

The name cDNA is not itself a written description of that DNA; it conveys no distinguishing information concerning its identity. While the example provides a process for obtaining human insulin-encoding cDNA, there is no further information in the patent pertaining to that cDNA's relevant structural or physical characteristics; in other words, it thus does not describe human insulin cDNA. Describing a method of preparing a cDNA or even describing the protein that the cDNA encodes, as the example does, does not necessarily describe the cDNA itself. No sequence information indicating which nucleotides constitute human cDNA appears in the patent, as appears for rat cDNA in Example 5 of the patent. Accordingly, the specification does not provide a written description of the invention of claim 5.

Therefore, only the specifically disclosed sequences of SEQ ID NO: 343, and related sequences which encode the disclosed antigen B305D/ D305D (through codon degeneracy) but not the full breadth of the claim meets the written description provision of 35 USC 112, first paragraph. The species specifically disclosed are not representative of the genus because the genus is highly variant. Applicant is reminded that <u>Vas-Cath</u> makes clear that the written description provision of 35 USC 112 is severable from its enablement provision. (See page 1115.)

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 4, and 11 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim

Art Unit: 1631

does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 part (c) recites the broad recitation "at least", and the claim also recites "consisting of" which is the narrower statement of the range/limitation.

The metes and bounds of the phrase "degenerate variants" in claim 1 step (g) are unclear. It is completely unclear how similar a sequence must be to SEQ ID NO: 343 to fall within the scope of the claims. There is no specific coding sequence identified in the claim such that sequences encoding the same amino acid sequence as SEQ ID NO: 343 could be readily identified, and it is not clear if that is what applicant intends. If applicant does intend to claim sequences that encode the same polypeptide sequences as SEQ ID NO: 343, amendments to such effect should be made to this limitation.

In claim 4, the term "a host cell" should be amended to "an isolated host cell" to be commensurate with the disclosure of the specification.

Claim 15 fails to further limit the composition of claim 8. The mere recitation of a "kit" does not add further materials or components to the oligonucleotide recited in claim 8.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

Art Unit: 1631

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, 8, 11 and 15 rejected under 35 U.S.C. 102(b) as being anticipated by GenBank BF676987 (2000).

The claims are drawn to isolated polynucleotides having some relationship to SEQ ID NO: 343, vectors, host cells, oligonucleotides and kits.

GenBank BF676987 (12/21/2000) discloses a polynucleotide that has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. As such, this record meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 rejected under 35 U.S.C. 102(b) as being anticipated by GenBank BF329652 (2000).

GenBank BF329652 (11/22/2000) discloses a polynucleotide whose complement has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. As such, this record meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 rejected under 35 U.S.C. 102(b) as being anticipated by GenBank B48260 (1999).

GenBank B48260 (4/8/1999) discloses a polynucleotide whose complement has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. As such, this record meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 01/34802.

WO 01/34802 (17 May 2001, PTO-1449) discloses a polynucleotide (SEQ ID NO: 531) that is 89.2% identical to SEQ ID NO: 343, has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. Compositions comprising carriers, and immunostimulants are disclosed. As such, this publication meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 01/51633.

WO 01/51633 (19 July 2001- PTO-1449) discloses a polynucleotide (SEQ ID NO: 531) that is 89.2% identical to SEQ ID NO: 343, has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. Compositions comprising carriers, and immunostimulants are disclosed. As such, this publication meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/61753.

WO 0061753 (10/19/2000- PTO-1449) discloses a polynucleotide (SEQ ID NO: 314) that is 89.2% identical to SEQ ID NO: 343, has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. Compositions comprising carriers, and immunostimulants are disclosed. As such, this publication meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Retter et al. (US 6,656,480)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37

Art Unit: 1631

CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

This patent discloses SEQ ID NO: 314 which is 89.2% identical to SEQ ID NO: 343 of the instant application. This polynucleotide (SEQ ID NO: 314) that is 89.2% identical to SEQ ID NO: 343, has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. Compositions comprising carriers, and immunostimulants are disclosed. As such, this publication meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Xu et al. (US 6,630,305)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

This patent discloses SEQ ID NO: 531 which is 89.2% identical to SEQ ID NO: 343 of the instant application. This polynucleotide (SEQ ID NO: 531) that is 89.2% identical to SEQ ID NO: 343, has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. Compositions comprising carriers, and immunostimulants are disclosed. As such, this publication meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Xu et al. (US 6,620,922)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

This patent discloses SEQ ID NO: 531 which is 89.2% identical to SEQ ID NO: 343 of the instant application. This polynucleotide (SEQ ID NO: 531) that is 89.2% identical to SEQ ID NO: 343, has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. Compositions comprising carriers, and immunostimulants are disclosed. As such, this publication meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Xu et al. (US 6,329,505)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

This patent discloses SEQ ID NO: 531 which is 89.2% identical to SEQ ID NO: 343 of the instant application. This polynucleotide (SEQ ID NO: 531) that is 89.2% identical to SEQ ID NO: 343, has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. Compositions comprising carriers, and immunostimulants are disclosed. As such, this publication meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Frudakis et al. (US 6,229,054- PTO-1449)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

This patent discloses SEQ ID NO: 291 whose complement is 87.9% identical to SEQ ID NO: 343 of the instant application. This polynucleotide (SEQ ID NO: 291) that is 87.9% identical to SEQ ID NO: 343, has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. Compositions comprising carriers, and immunostimulants are disclosed. As such, this publication meets the limitations of the rejected claims.

Claims 1, 3, 4, 8, 11 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Frudakis et al. (US 6344550)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

This patent discloses SEQ ID NO: 291 and SEQ ID NO: 292 whose complement is 87.9% identical to SEQ ID NO: 343 of the instant application. This polynucleotide (SEQ ID NO: 291/292) that is 87.9% identical to SEQ ID NO: 343, has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. Compositions comprising carriers, and

Application/Control Number: 10/079,137 Page 11

Art Unit: 1631

immunostimulants are disclosed. As such, this publication meets the limitations of the rejected claims.

### **Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3, 4, 8, 11 and 15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 7-9 of U.S. Patent No. 6,344,550. Although the conflicting claims are not identical, they are not patentably distinct from each other because the polynucleotide of SEQ ID NO: 291 of the '550 patent meets the limitations of claims 1 and 8 and dependent claims thereon. SEQ ID NO: 291 of the patent is 87.9% identical to SEQ ID NO: 343. This polynucleotide (SEQ ID NO: 292) that is 87.9% identical to SEQ ID NO: 343, has at least 20 contiguous nucleotides of SEQ ID NO: 343, would hybridize to SEQ ID NO: 343 under highly stringent conditions, and meets the limitations of the kit comprising the polynucleotide. This record also discloses a vector, and a host cell transformed with the vector. Compositions comprising carriers, and immunostimulants are disclosed. As such, this application is claiming the same invention as the patent.

#### Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary K Zeman whose telephone number is (571) 272 0723.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P Woodward can be reached on (571) 272 0722. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on the contents of the electronic file wrapper, or on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MARY K. ZEMAN PRIMARY EXAMINER